

Claim 1 recites a method of fabricating trench isolation structures wherein the trenches are filled with insulating material by an atomic layer deposition process. Sherman does not have any specific teachings regarding trench isolation structures. Further, while Sherman does disclose depositing a monolayer into a high aspect ratio hole, as in Example 10, there is no teaching or suggestion that the trenches can be filled by the disclosed methods.

Sherman teaches processes for growing thin films on a substrate. In particular, the methods taught by Sherman allow for the deposition of single monolayers of a desired thin film. Applicants submit that the art of record contains no motivation to fill trenches by the process of Sherman that deposits a single monolayer at a time.

Claim Rejections Under 35 U.S.C. §103

Claims 7-19 are rejected under 35 U.S.C. §103(a) as unpatentable over the combination of Sherman in view of Gates (U.S. Patent No. 6,203,613).

Applicants submit that the rejection of dependent Claims 7-19 is moot in view of the patentability of their base claims, as discussed above. Sherman fails to teach or suggest filling trenches by an atomic layer deposition process. This deficiency is not made up for by the teachings of Gates. Thus, Applicants submit that the present rejections should be withdrawn.

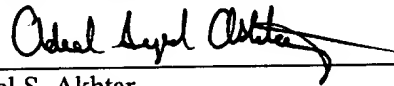
CONCLUSIONS

In view of the foregoing remarks, Applicants submit that the application is in condition for allowance and respectfully requests the same. If, however, some issue remains that the Examiner feels can be addressed by Examiner's Amendment, the Examiner is cordially invited to call the undersigned for authorization.

Respectfully submitted,

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